Recd. 3/17/93 from PD

SFUND RECORDS CTR 2349216

phelps

Morenci Linc. 4521 State Hwy. 666, Morenci, Arizona 85540-9795 • (602) 865-4521

October 26, 1992

Arizona Department of Environmental Quality Office of Water Quality Water Pollution Compliance Unit 3033 North Central Ave. (at Earll) Phoenix, Arizona 85012

Dear Sirs:

Groundwater Quality Protection Permit No. G-0001-06 Third Ouarter 1992 Sampling Report

This constitutes the quarterly groundwater sampling report required by Groundwater Quality Protection Permit No. G-0001-06, as specified on page 11 of that permit. Included are Self-Monitoring Report forms, Groundwater Sampling Procedures Documentation forms and tables containing monthly sampling results, quarterly sampling results, and 5-point averages.

Monthly-required constituent analyses for July, August and September 1992 are found in Tables 1A, 1B, and 1C. Quarterly required constituent analyses for July 1992 are found in Tables 2A, 2B, and 2C.

Permit G-0001-06 specifies that compliance shall be based on 5-point running averages. Accordingly, we have enclosed 5-point monthly running averages for March 1992 through July 1992, April 1992 through August 1992, and May 1992 through September 1992. These are found in Tables 3A, 3B, and 3C. Five-point quarterly-required running averages are provided for July 1991 through July 1992. These are found in Tables 4A, 4B, and 4C. For purposes of computing averages when values were not detectable, one-half the EPA method detection limit was used for the constituent concentration. This substitution was discussed in Supplement 4 to our application for the permit.

Weekly monitoring for fluids in the leak detection system installed in the Central SX/EW raffinate and plant feed ponds continues. Please contact me if you have any questions.

very truly yours,

Environmental Services Supervisor

TLC:km (F7) Enclosures

J. D. Worsham - w/encls.

T. R. Snider - w/o encls.

A. J. Broderick - "

#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Invnum: 100193

Permit: G-0001-06

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

: Well CC-7 Name : A00085

Point Latitude: 33°3'25.09" Longitude: 109°18'52.61"

: 29E Range Township: 04S Quarter : BDD Section: 25

Phelps Dodge Morenci, Inc.

Quarterly Reporting - Monthly Monitoring Timothy R. Snider, Branch Manager

P. O. Box 187

Morenci, AZ. 85540

						PERMIT LIMIT -		PERMIT LIMIT
PH					,	Reserved	SU	No Limit
SAMPLE DATE	- ANALYSIS DATE -	- STORET -		THOD	— LAB ID —	CONCENTRATION REPO	RTED	LOADING REPORTED
07/06/92 08/03/92	07/22/92 08/18/92	00400 00400	EPA EPA	150.1 150.1	1186 1186	7.8000	SU	XXXXXXXXXXXXX
09/01/92	09/11/92	00400	EPA	150.1	1186	7.2000	\$U	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BICARBONATE			<u>.·</u>		,	PERMIT LIMIT — Reserved	•	No Limit
SAMPLE DATE	ANALYSIS DATE	STORET		THOO	LAB ID	CONCENTRATION REPO	MG/L	LOADING REPORTED
07/06/92 08/03/92	07/22/92 08/18/92	00440 00440	EPA EPA	305.1 305.1	1186 1186	117.0000	MG/L	XXXXXXXXXXXX
09/01/92	09/11/92	00440	EPA	305.1	1186	121.0000	MG/L	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
TOTAL CALCI	UM					PERMIT LIMIT - Reserved	-	No Limit
SAMPLE DATE	- ANALYSIS DATE -	STORET	HI	THOD	LAB ID	CONCENTRATION REPO		LOADING REPORTED
07/06/92	07/22/92	00916	EPA	215.1	1186	410.0000	MG/L	XXXXXXXXXXXXX
08/03/92	08/18/92	00916	EPA	215.1	1186	390.0000 380.0000	MG/L MG/L	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
09/01/92	09/11/92	00916	EPA	215.1	1186	380.0000	HG / D	

09/01/92

SAMPLE DATE .

07/06/92

08/03/92

09/01/92

TOTAL CHLORIDE

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Monthly Monitoring

Invnum: 100193 Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Permit: G-0001-06 : Well CC-7 Point : A00085 Name - PERMIT LIMIT PERMIT LIMIT -Reserved MG/L No Limit TOTAL MAGNESIUM CONCENTRATION REPORTED LOADING REPORTED SAMPLE DATE ANALYSIS DATE STORET -METHOD LAB ID XXXXXXXXXXXXX 242.1 1186 70.0000 MG/L 00927 EPA 07/06/92 07/22/92 1186 70.0000 MG/L XXXXXXXXXXXXX 242.1 08/18/92 00927 EPA 08/03/92 XXXXXXXXXXXXX 242.1 1186 68.0000 MG/L 00927 EPA 09/01/92 09/11/92 PERMIT LIMIT -PERMIT LIMIT -No Limit Reserved MG/L SODIUM CONCENTRATION REPORTED LOADING REPORTED STORET . METHOD LAB ID SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXX 33.0000 MG/L 273.1 1186 00929 07/06/92 07/22/92 EPA 34.0000 MG/L XXXXXXXXXXXXX 273.1 1186 08/03/92 08/18/92 00929 **EPA** XXXXXXXXXXXXX 32.0000 MG/L 00929 **EPA** 273.1 1186 09/01/92 09/11/92 - PERMIT LIMIT -PERMIT LIMIT -No Limit Reserved MG/L TOTAL POTASSIUM CONCENTRATION REPORTED LOADING REPORTED LAB ID SAMPLE DATE -- ANALYSIS DATE STORET METHOD XXXXXXXXXXXXX 10.3000 MG/L 07/22/92 00937 **EPA** 258.1 1186 07/06/92 XXXXXXXXXXXXX 258.1 1186 11.0000 MG/L 08/18/92 00937 **EPA** 08/03/92

1186

LAB ID

1186

1186

1186

10.5000

159.0000

151.0000

162.0000

PERMIT LIMIT -

Reserved MG/L

CONCENTRATION REPORTED -

MG/L

MG/L

MG/L

MG/L

258.1

325.1

325.1

325.1

METHOD

EPA

**EPA** 

**EPA** 

**EPA** 

XXXXXXXXXXXXX

- PERMIT LIMIT -

No Limit

LOADING REPORTED

XXXXXXXXXXXXX

XXXXXXXXXXXXX

XXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

00937

STORET '

00941

00941

00941

09/11/92

ANALYSIS DATE

07/22/92

08/18/92

09/11/92

09/01/92

#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Ouarterly Reporting - Monthly Monitoring

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Invnum: 100193 Permit: G-0001-06 : Well CC-7 Name Point : A00085 - PERMIT LIMIT PERMIT LIMIT -Reserved MG/L No Limit SULFATE CONCENTRATION REPORTED LOADING REPORTED LAB ID STORET METHOD SAMPLE DATE . ANALYSIS DATE -1010.0000 MG/L XXXXXXXXXXXXXX 1186 EPA 375.3 00945 07/06/92 07/22/92 XXXXXXXXXXXXX MG/L 1186 €980.0000 3 375.3 08/18/92 00945 EPA 08/03/92 , **950.0000**3 XXXXXXXXXXXXXXX MG/L 375.3 1186 00945 EPA 09/11/92 09/01/92 PERMIT LIMIT -PERMIT LIMIT -Reserved MG/L No Limit TOTAL IRON LOADING REPORTED CONCENTRATION REPORTED LAB ID SAMPLE DATE ANALYSIS DATE STORET METHOD MG/L XXXXXXXXXXXXX -0.0300 EPA 236.1 1186 07/06/92 07/22/92 01045 -0.0300 XXXXXXXXXXXXX 236.1 1186 MG/L 01045 EPA 08/18/92 08/03/92 XXXXXXXXXXXXX -0.0300 MG/L 236.1 1186 01045 **EPA** 09/11/92 09/01/92 PERMIT LIMIT -PERMIT LIMIT . Reserved MG/L No Limit TOTAL DISSOLVED SOLIDS LOADING REPORTED CONCENTRATION REPORTED LAB ID SAMPLE DATE ANALYSIS DATE STORET -METHOD 1186 1910.0000 MG/L XXXXXXXXXXXXX 70295 **EPA** 160.1 07/22/92 07/06/92 MG/L XXXXXXXXXXXXX 1186 1880.0000 160.1 08/18/92 70295 **EPA** 08/03/92 XXXXXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

70295

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

160.1

EPA

1186

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

09/11/92

1900.0000

MG/L

#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

Invnum: 100193 Permit: G-0001-06

Point

: A00085

: Well CC-7 Name

Latitude: 33°3'25.09" Longitude: 109°18'52.61"

Township: 04S

Range

: 29E

Section: 25

Quarter : BDD

Phelps Dodge Morenci, Inc.

Timothy R. Snider,

Branch Manager

Quarterly Reporting - Quarterly Monitoring

P. O. Box 187

Morenci, AZ. 85540

						PERMIT LIMIT	PERMIT LIMIT
TOTAL FLUOR	IDE				•	1.4000 MG/L	No Limit
SAMPLE DATE -	- ANALYSIS DATE -	STORET	ME	THOD -	— LAB 1D —	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	00951	EPA	340.1	1186	0.5400 MG/L	XXXXXXXXXXXXX
TOTAL ARSEN	TC.					O.5000 MG/L	No Limit
		CTODET	ME	THOD	— LAB ID —	— CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	— ANALYSIS DATE — 07/22/92	STORET 01002	EPA	206.2	1186	-0.0020 MG/L	XXXXXXXXXXXXX
MOMAT PARTH	M.					PERMIT LIMIT — 1.0000 MG/L	No Limit
TOTAL BARIU				TUON	- LAB ID -	CONCENTRATION REPORTED	LOADING REPORTED
SAMPLE DATE		STORET.	•	THOD		-0.1000 MG/L	XXXXXXXXXXXXXX
07/06/92	07/22/92	01007	EPA	208.1	1186	PERMIT LIMIT	PERMIT LIMIT
TOTAL CADMI	·UM					0.0100 MG/L	No Limit
SAMPLE DATE -		STORET	MI	THOD	— LAB ID —	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01027	EPA	213.1	1186	-0.0050 MG/L	XXXXXXXXXXXXXX
TOTAL CHROM	ITUM					PERMIT LIMIT — 0.0500 MG/L	No Limit
SAMPLE DATE		STORET	N	THOD	— LAB ID —	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01029	EPA	218.1		-0.0100 MG/L	XXXXXXXXXXXXXX

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Quarterly Monitoring

	PHELPS DODGE A00085	Quar MORENCI Name	cerly Report NC - CHASE : Well CC-	CREEK	—— PERMIT LIMIT	Invnum: 100193 Permit: G-0001-06 PERMIT LIMIT
TOTAL COPPE	R				Reserved MG/L	No Limit
SAMPLE DATE	- ANALYSIS DATE -	STORET	METHOD -	LAB ID	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01042	EPA 220.	1 1186	-0.0100 MG/L	XXXXXXXXXXXX
					PERMIT LIMIT	PERMIT LIMIT
TOTAL LEAD					0.0500 MG/L	No Limit
SAMPLE DATE	- ANALYSIS DATE -	STORET	METHOD -	LAB ID	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01051	EPA 239.	2 1186	-0.0020 MG/L	XXXXXXXXXXXXXX
					PERMIT LIMIT	PERMIT LIMIT
TOTAL MANGA	NESE				Reserved MG/L	No Limit
	- ANALYSIS DATE -	STORET	METHOD -	LAB ID	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01055	EPA 243.	1 1186	-0.0100 MG/L	XXXXXXXXXXXXX
		-			PERMIT LIMIT	No Limit
TOTAL SILVE	R		•		0.0500 MG/L	
SAMPLE DATE		STORET -	METHOD -	LAB ID	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	01077	EPA 272.	1 1186	-0.0020 MG/L	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
					PERMIT LIMIT	No Limit
TOTAL SELEN	IUM				0.0100 MG/L	LOADING REPORTED
SAMPLE DATE	ANALYSIS DATE -	STORET	METHOD -	LAB ID	CONCENTRATION REPORTED	XXXXXXXXXXXXXXX
07/06/92	07/22/92	01147	EPA 270.	. 2 1186	0.0050 MG/L	PERMIT LIMIT
					PERMIT LIMIT	No Limit
TOTAL PHENO	)LS				Reserved MG/L	LOADING REPORTED
SAMPLE DATE	- ANALYSIS DATE -	STORET -	METHOD -		CONCENTRATION REPORTED	XXXXXXXXXXXXXXXX
07/06/92	07/22/92	46000	EPA 420	.2 1186	-0.0050 MG/L	PERMIT LIMIT
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	<del> </del>		PERMIT LIMIT	No Limit
TOTAL MERCU	JRY				0.0020 MG/L	LOADING REPORTED
SAMPLE DATE -	ANALYSIS DATE -	STORET	METHOD —	LAB ID	CONCENTRATION REPORTED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
, 07/06/92	07/22/92	71900	EPA 245	.1 1186	0.0004 MG/L	**************************************

### SELF MONITORING REPORT FORM

Facility: PHI Point : A00				IASE CRI		PERMIT LIMIT	Invnum: 100193 Permit: G-0001-06
TOTAL ZINC SAMPLE DATE 07/06/92	ANALYSIS DATE — 07/22/92	STORET	EPA	THOO	— LAB ID —— 1186	Reserved MG/L	No Limit  LOADING REPORTED  XXXXXXXXXXXXXXXX  PERMIT LIMIT
NITRATE SAMPLE DATE 07/06/92	ANALYSIS DATE — 07/22/92	STORET 00620	EPA	THOD	— LAB ID — 1186	10.0000 MG/L	No Limit  LOADING REPORTED  XXXXXXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

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#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

Name : Well CC-8

: A00086 Point Latitude: 33°3'42.10" Longitude: 109°19'19.16"

: 29E Range Township: 04S Quarter : BBB Section: 25

Phelps Dodge Morenci, Inc.

Timothy R. Snider, Branch Manager

Quarterly Reporting - Monthly Monitoring

Invnum: 100193

Permit: G-0001-06

P. O. Box 187

Morenci, AZ. 85540

		·			<del>.</del>	PERMIT LIMIT -	·	PERMIT LIMIT
PH .	•				•	Reserved	SU	No Limit
SAMPLE DATE -	- ANALYSIS DATE -	- STORET	ME	THOD	- LAB ID	CONCENTRATION REPO	DRTED	LOADING REPORTED
07/06/92	07/22/92	00400	EPA	150.1	1186	7.3000	SU	XXXXXXXXXXXXXXXX
08/03/92	08/18/92	00400	EPA	150.1	1186	7.8000	SU	XXXXXXXXXXXXXX
09/01/92	09/11/92	00400	EPA	150.1	1186	7.5000	SU	XXXXXXXXXXXXXXX
03/01/32					·	PERMIT LIMIT -		PERMIT LIMIT
BICARBONATE			,			Reserved	MG/L	No Limit
SAMPLE DATE		- STORET -	ME	ETHOD	- LAB ID -	CONCENTRATION REP	ORTED -	LOADING REPORTED
07/06/92	07/22/92	00440	EPA	305.1	1186	110.0000	MG/L	XXXXXXXXXXXXXXXXX
08/03/92	08/18/92	00440	EPA	305.1	1186	110.0000	MG/L	XXXXXXXXXXXXXXX
09/01/92	09/11/92	00440	EPA	305.1	1186	110.0000	MG/L	XXXXXXXXXXXXXX
	,,					PERMIT LIMIT -		PERMIT LIMIT
TOTAL CALCI	UM	4		,		Reserved	MG/L	No Limit
SAMPLE DATE -	- ANALYSIS DATE -	STORET	MI	ETHOO	- LAB ID -	CONCENTRATION REP	ORTED	LOADING REPORTED
07/06/92	07/22/92	00916	EPA	215.1	1186	290.0000	MG/L	XXXXXXXXXXXXX
08/03/92	08/18/92	00916	EPA	215.1	1186	280.0000	MG/L	XXXXXXXXXXXXXX
09/01/92	09/11/92	00916	EPA	215.1	1186	. 290.0000	MG/L	XXXXXXXXXXXXXX
					•			·

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Monthly Monitoring Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Invnum: 100193 Permit: G-0001-06 : Well CC-8 : A00086 Name

		Name				PERMIT LIMIT ———————————————————————————————————	PERMIT LIMIT
TOTAL MAGNE	SIUM					Reserved MG/L	LOADING REPORTED
SAMPLE DATE -	ANALYSIS DATE	- STORET		THOO	- LAB ID	CONCENTRATION REPORTED	XXXXXXXXXXXXXXXX
07/06/92	07/22/92	00927	EPA	242.1	1186	67.0000 MG/L	
08/03/92	08/18/92	00927	EPA	242.1	1186	65.0000 MG/L	XXXXXXXXXXXXXXX
09/01/92	09/11/92	00927	EPA	242.1	1186	61.0000 MG/L	XXXXXXXXXXXXXX
						PERMIT LIMIT	PERMIT LIMIT
ODIUM	•			•	,	Reserved MG/L	No Limit
SAMPLE DATE -	- ANALYSIS DATE -	- STORET	MI	THOD -	- LAB ID -	CONCENTRATION REPORTED	LOADING REPORTED
07/06/92	07/22/92	00929	EPA	273.1	1186	74.0000 MG/L	XXXXXXXXXXXXXX
08/03/92	08/18/92	00929	EPA	273.1	1186	79.0000 MG/L	XXXXXXXXXXXXXX
09/01/92	09/11/92	00929	EPA	273.1	1186	76.0000 MG/L	XXXXXXXXXXXXXX
09/01/92	05/11/52				·	PERMIT LIMIT	PERMIT LIMIT
OTAL POTAS	RETIM					Reserved MG/L	No Limit
	— ANALYSIS DATE —	STORET	MI	ETHOD	— LAB ID —	CONCENTRATION REPORTED	LOADING REPORTED
SAMPLE DATE		00937	EPA	258.1	1186	8.5000 MG/L	XXXXXXXXXXXXX
07/06/92	•	00937	EPA	258.1	1186	9.1000 MG/L	XXXXXXXXXXXXXX
08/03/92	08/18/92	00937	EPA	258.1	1186	8.8000 MG/L	XXXXXXXXXXXXXX
09/01/92	09/11/92	00937	EFA	230.1		PERMIT LIMIT	PERMIT LIMIT
						Reserved MG/L	No Limit
TOTAL CHLOR	*		· · · · · ·		— LAB ID —	CONCENTRATION REPORTED	LOADING REPORTED
SAMPLE DATE	ANALYSIS DATE	STORET -		ETHOD		288.0000 MG/L	XXXXXXXXXXXX
07/06/92	07/22/92	00941	EPA	325.1	1186	295.0000 MG/L	XXXXXXXXXXXXXXX
08/03/92	08/18/92	00941	EPA	325.1	1186		XXXXXXXXXXXXXXXX
09/01/92	09/11/92	00941	EPA	325.1	1186	308.0000 1 MG/L	*******************

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Monthly Monitoring

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK
Point : A00086 Name : Well CC-8
Permit: G-0001-06

.00086	Name	: MeII	CC-8				
					PERMIT LIMIT	YG /T	No Limit
					Reserved .	MG/L	
- ANALYSIS DATE -	- STORET -	MET	HOD	- LAB ID	CONCENTRATION REPOR	RTED -	LOADING REPORTED
		EPA	375.3	1186	(615.0000)	MG/L	XXXXXXXXXXXXXX
, ,						MG/L	XXXXXXXXXXXXXXX
• •					· · · · · · · · · · · · · · · · ·	•	XXXXXXXXXXXXXXX
09/11/92	00945	BPA '	373.3	1100			PERMIT LIMIT
						MG/T.	No Limit
						*	LOADING REPORTED
— ANALYSIS DATE -	STORET -	ME1	HOD				
07/22/92	01045	EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXXX
	01045	EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXX
• •		EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXXXXX
07/11/72	01010						PERMIT LIMIT
WED GOT THE						MG/L	No Limit
•		45				-	LOADING REPORTED
							XXXXXXXXXXXXX
07/22/92	70295	EPA	160.1			-	
08/18/92	70295	EPA	160.1	1186	•	MG/L	XXXXXXXXXXXXX
09/11/92	70295	EPA	160.1	1186	1520.0000	MG/L	XXXXXXXXXXXXXXXXXX
	- ANALYSIS DATE - 07/22/92 08/18/92 09/11/92  - ANALYSIS DATE - 07/22/92 08/18/92 09/11/92  LVED SOLIDS - ANALYSIS DATE - 07/22/92 08/18/92	- ANALYSIS DATE - STORET - 07/22/92 00945 08/18/92 00945 09/11/92 00945 - 4NALYSIS DATE - STORET - 07/22/92 01045 09/11/92 01045 09/11/92 01045 - 4NALYSIS DATE - STORET - 07/22/92 70295 08/18/92 70295	- ANALYSIS DATE - STORET - MET  07/22/92 00945 EPA  08/18/92 00945 EPA  09/11/92 00945 EPA  - ANALYSIS DATE - STORET - MET  07/22/92 01045 EPA  08/18/92 01045 EPA  LVED SOLIDS - ANALYSIS DATE - STORET - MET  07/22/92 70295 EPA  08/18/92 70295 EPA	- ANALYSIS DATE - STORET - METHOD - 07/22/92 00945 EPA 375.3 08/18/92 00945 EPA 375.3 09/11/92 00945 EPA 375.3 - 375.3 - ANALYSIS DATE - STORET - METHOD - 07/22/92 01045 EPA 236.1 09/11/92 01045 EPA 236.1 09/11/92 01045 EPA 236.1 CVED SOLIDS - ANALYSIS DATE - STORET - METHOD - METHOD - 07/22/92 70295 EPA 160.1 08/18/92 70295 EPA 160.1	- ANALYSIS DATE	PERMIT LIMIT — Reserved	PERMIT LIMIT Reserved MG/L  - ANALYSIS DATE

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Junot A Smid-DATE.

10/26/9~

Invnum: 100193

#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Invnum: 100193

Permit: G-0001-06

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

: Well CC-8 Name

: A00086 Point Latitude: 33°3'42.10" Longitude: 109°19'19.16"

Range : 29E Township: 04S Quarter : BBB Section: 25

Phelps Dodge Morenci, Inc.

Quarterly Reporting - Quarterly Monitoring Timothy R. Snider, Branch Manager

P. O. Box 187

Morenci, AZ. 85540

SAMPLE DATE					<u> </u>		PERMIT LIMIT	PERMIT LIMIT
SAMPLE DATE		· ·		MT	71100	LAB 10		No Limit  LOADING REPORTED
Depart   Concentration reported   Concentrat								
TOTAL ARSENIC   STORET   METHOD   LAB ID   CONCENTRATION REPORTED   LOADING REPORTED	07/06/92	07/22/92	00951	EPA	340.1	1100	•	
SAMPLE DATE	TOTAL ADDEN	ITC						
O7/06/92   O7/22/92   O1002   EPA   206.2   1186   O.0020   Mg/L   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			STORET		:THOO	- LAB ID -	CONCENTRATION REPORTED	LOADING REPORTED
PERMIT LIMIT							the state of the s	XXXXXXXXXXXXX
TOTAL BARIUM	07/06/92	01/22/92	01002	BFA	200.2	1100	•	PERMIT LIMIT
SAMPLE DATE	MOMAT PARTI	TS-4*						No Limit
O7/06/92   O7/22/92   O1007   EPA   208.1   1186   -0.1000   MG/L   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			6760ET	MI	THOO	- IAR ID		LOADING REPORTED
DOTAL CADMIUM								XXXXXXXXXXXXXX
TOTAL CADMIUM	07/06/92	07/22/92	01007	EFA	200.1	1100		
SAMPLE DATE — ANALYSIS DATE — STORET — METHOD — LAB ID — CONCENTRATION REPORTED — LOADING REPORTED  07/06/92 07/22/92 01027 EPA 213.1 1186 — -0.0050 MG/L XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	MORRY CARNET	TTV						
O7/06/92   O7/22/92   O1027   EPA   213.1   1186   -0.0050   MG/L   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			0100FT	MI	ETUON	IAR IN	•	LOADING REPORTED
TOTAL CHROMIUM  SAMPLE DATE — ANALYSIS DATE — STORET — METHOD — LAB ID — CONCENTRATION REPORTED — LOADING REPORTED			,					xxxxxxxxxxxx
TOTAL CHROMIUM  SAMPLE DATE —— ANALYSIS DATE —— STORET —— METHOD —— LAB ID —— CONCENTRATION REPORTED —— LOADING REPORTED	07/06/92	07/22/92	01027	EPA	213.1	1100	· · · · · · · · · · · · · · · · · · ·	
SAMPLE DATE —— ANALYSIS DATE —— STORET —— METHOD —— LAB ID —— CONCENTRATION REPORTED —— LOADING REPORTED			<u> </u>					
SAMPLE DATE ANALYSIS DATE STOKE	TOTAL CHROM	IIUM	,	•	•		·	
07/06/92 07/22/92 01029 EPA 218.1 1186 -0.0100 MG/L XXXXXXXXXXXXXXX	SAMPLE DATE -	ANALYSIS DATE -	STORET	M	ETHOD		• •	
	07/06/92	07/22/92	01029	EPA	218.1	1186	-0.0100 MG/L	XXXXXXXXXXXXX

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY Quarterly Reporting - Quarterly Monitoring

Point : A	HELPS DODGE	Name	: Well	CC-8		PERMIT LIMIT Reserved MG	Permit: G-0001-0
OTAL COPPER					- LAB ID	CONCENTRATION REPORTED	
SAMPLE DATE	— ANALYSIS DATE —	STORET		220.1	1186	-0.0100 MG/	
07/06/92	07/22/92	01042	EPA	220.1	1100	PERMIT LIMIT	PERMIT LIMIT —
OTAL LEAD						0.0500 MG	
	- ANALYSIS DATE -	STORET	MI	ETHOD -	- LAB ID	CONCENTRATION REPORTED	LOADING REPORTED
SAMPLE DATE		01051	EPA	239.2	1186	-0.0020 MG/	· · · · · · · · · · · · · · · · · · ·
07/06/92	07/22/92	01031	2			PERMIT LIMIT	PERMIT LIMIT
OTAL MANGAL	VPCP					Reserved MG	/L No Limit
•		STORET -		ETHOD	- LAB ID -		
SAMPLE DATE	07/22/92	01055	EPA "	243.1	1186	-0.0100 MG/	
07/06/92	01/22/32	01033				PERMIT LIMIT	PERMIT LIMIT
OTAL SILVE	R					0.0500 MG	•
SAMPLE DATE	- ANALYSIS DATE -	STORET	——— M	ETHOD	- LAB ID -	CONCENTRATION REPORTED	
07/06/92	07/22/92	01077	EPA	272.1	1186	-0.0020 MG/	T XXXXXXXXXXXXXX
07700752						PERMIT LIMIT	PERMIT LIMIT
TOTAL SELEN	IUM					0.0100 MG	·
SAMPLE DATE	- ANALYSIS DATE -	STORET		ETHOD -	— LAB ID —	CONCENTRATION REPORTED	
07/06/92	07/22/92	01147	EPA	270.2	1186	0.0030 MG	
07/00/52	0.722,02					PERMIT LIMIT	PERMIT LIMIT
TOTAL PHENO	LS					Reserved MG	•
SAMPLE DATE	- ANALYSIS DATE -	STORET -	—— н	ETHOD	- LAB ID -	CONCENTRATION REPORTED	
08/26/92	09/14/92	46000	EPA	420.2	1186	-0.0050 MG	
-00/40/94	03/14/32					PERMIT LIMIT	PERMIT LIMIT -
TOTAL MERCU	RY		•			0.0020 MG	•
	ANALYSIS DATE -	STORET -	<u> </u>	ETHOD	- LAB ID -	CONCENTRATION REPORTED	
07/06/92	07/22/92	71900	EPA	245.1	1186	0.0003 MG	/L XXXXXXXXXXXXXXXX

# SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Ouarterly Reporting - Quarterly Monitoring

· · · · · · · · · · · · · · · · · · ·	PHELPS DODGE 100086	-	INC - CHASE CRI : Well CC-8		PERMIT LIMIT	Invnum: 100193 Permit: G-0001-06
TOTAL ZINC SAMPLE DATE 07/06/92	— ANALYSIS DATE — 07/22/92	STORET 82062	METHOD — EPA 289.1	— LAB ID — 1186	Reserved MG/L	No Limit  LOADING REPORTED  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
NITRATE SAMPLE DATE 07/06/92	— ANALYSIS DATE — 07/22/92		METHOD ————————————————————————————————————	— LAB ID — 1186	10.0000 MG/L  concentration reported  1.4000 MG/L	No Limit  LOADING REPORTED  XXXXXXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Jemot 1 Anide DATE 10/26/92

#### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

Invnum: 100193

: A00087

Name

: Well CC-14

Permit: G-0001-06

Latitude: 33°3'32.54" Longitude: 109°19'13.72"

Range : 29E

Township: 04S Section: 25

Quarter : BCA

Phelps Dodge Morenci, Inc.

Timothy R. Snider,

Branch Manager

Quarterly Reporting - Monthly Monitoring

P. O. Box 187

Morenci, AZ. 85540

						PERMIT LIMIT -		PERMIT LIMIT
PH						Reserved	SU	No Limit
SAMPLE DATE	- ANALYSIS DATE -	STORET	ME	THOD	- LAB ID -	CONCENTRATION REPO	RTED	LOADING REPORTED
07/06/92	07/22/92	00400	EPA	150.1	1186	7.1000	SU	XXXXXXXXXXXXXXXX
08/03/92	08/18/92	00400	EPA	150.1	1186	7.8000	SU	XXXXXXXXXXXXXXXXX
09/01/92	09/11/92	00400	EPA	150.1	1186	7.2000	SU	XXXXXXXXXXXXXXXXX
		·			<del></del>	PERMIT LIMIT -		PERMIT LIMIT
BICARBONATE			•		•	Reserved	MG/L	No Limit
SAMPLE DATE	- ANALYSIS DATE -	STORET	ME	ETHOD	- LAB ID -	CONCENTRATION REPO	ORTED -	LOADING REPORTED
07/06/92	07/22/92	00440	EPA	305.1	1186	108.0000	MG/L	XXXXXXXXXXXXXX
08/03/92	08/18/92	00440	EPA	305.1	1186	109.0000	MG/L	XXXXXXXXXXXXXX
09/01/92	09/11/92	00440	EPA	305.1	1186	110.0000	MG/L	XXXXXXXXXXXXXXX
						PERMIT LIMIT -	<u>_</u>	PERMIT LIMIT
TOTAL CALCIU	JM.		•			Reserved	MG/L	No Limit
SAMPLE DATE -	- ANALYSIS DATE -	STORET		ETHOD -	- LAB ID	CONCENTRATION REP	DRTED -	LOADING REPORTED
07/06/92	07/22/92	00916	EPA	215.1	1186	320.0000	MG/L	XXXXXXXXXXXXXX
08/03/92	08/18/92	00916	EPA	215.1	1186	306,0000	MG/L	XXXXXXXXXXXXX
09/01/92	09/11/92	00916	EPA	215.1	1186	290.0000	MG/L	XXXXXXXXXXXXXX

09/01/92

## SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Monthly Monitoring

Invnum: 100193 Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Permit: G-0001-06 : Well CC-14 Name Point : A00087 - PERMIT LIMIT -PERMIT LIMIT -Reserved MG/L No Limit TOTAL MAGNESIUM - LOADING REPORTED CONCENTRATION REPORTED LAB ID STORET SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXX 65.0000 MG/L 242.1 1186 00927 **EPA** 07/22/92 07/06/92 XXXXXXXXXXXXXX 242.1 1186 66.0000 MG/L 00927 **EPA** 08/03/92 08/18/92 MG/L XXXXXXXXXXXXX 242.1 1186 64.0000 00927 EPA 09/11/92 09/01/92 PERMIT LIMIT -PERMIT LIMIT -No Limit Reserved MG/L SODIUM LOADING REPORTED CONCENTRATION REPORTED LAB ID METHOD STORET SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXX MG/L 47.0000 273.1 1186 07/06/92 07/22/92 00929 EPA XXXXXXXXXXXXX 41.0000 MG/L 273.1 1186 00929 **EPA** 08/18/92 08/03/92 XXXXXXXXXXXXX 47.0000 MG/L **EPA** 273.1 1186 00929 09/11/92 09/01/92 - PERMIT LIMIT -PERMIT LIMIT Reserved MG/L No Limit TOTAL POTASSIUM CONCENTRATION REPORTED LOADING REPORTED LAB ID ANALYSIS DATE STORET METHOD SAMPLE DATE ' XXXXXXXXXXXXXX 10.0000 MG/L 00937 EPA 258.1 1186 07/06/92 07/22/92 XXXXXXXXXXXXX 8.7000 MG/L 258.1 1186 00937 EPA 08/03/92 08/18/92 XXXXXXXXXXXXX MG/L 1186 10.4000 258.1 00937 **EPA** 09/11/92 09/01/92 - PERMIT LIMIT -PERMIT LIMIT -No Limit Reserved MG/L TOTAL CHLORIDE LOADING REPORTED CONCENTRATION REPORTED METHOD LAB ID STORET SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXXX MG/L 325.1 1186 297.0000 00941 EPA 07/06/92 07/22/92 XXXXXXXXXXXXX (300.0000) MG/L 325.1 1186 **EPA** 08/18/92 00941 08/03/92

325.1

EPA

1186

291.0000

MG/L

XXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

00941

09/11/92

# SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Monthly Monitoring

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK
Point: A00087 Name: Well CC-14
PERMIT LIMIT — PERMIT LIMIT — PERMIT LIMIT — PROPRIED MG/L NO Limit

						PERMIT LIMIT -		PERMIT LIMIT	
SULFATE		•				Reserved	MG/L	No Limit	
SAMPLE DATE	- ANALYSIS DATE -	- STORET -	ME	THOD	- LAB ID	CONCENTRATION REPO	ORTED -	LOADING REPORTED	
07/06/92	07/22/92	00945	EPA	375.3	1186	650.0000	MG/L	XXXXXXXXXXXXXXXXX	
	08/18/92	00945	EPA	375.3	1186	C <b>580.0000</b> )	MG/L	XXXXXXXXXXXXXXX	
08/03/92	• •	00945	EPA	375.3	1186	585.0000	MG/L	XXXXXXXXXXXXXXX	•
09/01/92	09/11/92	00343	DI A			PERMIT LIMIT -		PERMIT LIMIT	
TOTAL IRON				•		Reserved	MG/L	No Limit	
	- ANALYSIS DATE -	STORET	MI	ETHOD	- LAB ID -	CONCENTRATION REPO	ORTED -	LOADING REPORTED	í
SAMPLE DATE	07/22/92	01045	EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXXX	,
07/06/92	• •	01045	EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXXXX	
08/03/92	08/18/92	01045	EPA	236.1	1186	-0.0300	MG/L	XXXXXXXXXXXXXXXXX	
09/01/92	09/11/92	01045	EFA	230.1		PERMIT LIMIT -		PERMIT LIMIT	
TOTAL DISSO	LVED SOLIDS					Reserved	MG/L	No Limit	
_		STORET		ETHOD -	- LAB ID -	CONCENTRATION REP	ORTED	LOADING REPORTED	
SAMPLE DATE		70295	EPA	160.1	1186	1580.0000	MG/L	XXXXXXXXXXXXXX	
07/06/92	07/22/92			160.1	1186	1550.0000	MG/L	XXXXXXXXXXXXXXXXX	
08/03/92	08/18/92	70295	EPA		1186	1570.0000	MG/L	XXXXXXXXXXXXXX	
09/01/92	09/11/92	70295	EPA	160.1	1100	1370.0000	, 2		

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

1 CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

## SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Invnum: 100193

Permit: G-0001-06

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

Point : A00087 Name : Well CC-14

Latitude: 33°3'32.54" Longitude: 109°19'13.72"

Township: 04S Range Section: 25 Quarter

Range : 29E Quarter : BCA

Phelps Dodge Morenci, Inc.

Timothy R. Snider, Branch Manager Quarterly Reporting - Quarterly Monitoring

P. O. Box 187

Morenci, AZ. 85540

	· .					PERMIT LIMIT	PERMIT LIMIT
TOTAL FLUOR SAMPLE DATE 07/06/92	IDE . — ANALYSIS DATE — 07/22/92	STORET		THOD	LAB ID 1186	1.4000 MG/L —— CONCENTRATION REPORTED —— 0.7600 MG/L ——— PERMIT LIMIT	NO Limit LOADING REPORTED XXXXXXXXXXXXXXXX PERMIT LIMIT
TOTAL ARSEN SAMPLE DATE 07/06/92	IIC — ANALYSIS DATE — 07/22/92	— STORET — 01002	EPA	THOD	— LAB ID —— 1186	O.5000 MG/L  — CONCENTRATION REPORTED  —0.0020 MG/L  —PERMIT LIMIT	NO Limit —— LOADING REPORTED  XXXXXXXXXXXXXXXX ——— PERMIT LIMIT
TOTAL BARIU SAMPLE DATE 07/06/92	M ANALYSIS DATE — 07/22/92	STORET 01007	EPA	TH00	— LAB ID —— 1186	1.0000 MG/L —— CONCENTRATION REPORTED ——0.1000 MG/L —— PERMIT LIMIT	No Limit —— LOADING REPORTED  XXXXXXXXXXXXXXXX ——— PERMIT LIMIT
TOTAL CADMI SAMPLE DATE	UM — ANALYSIS DATE — 07/22/92	STORET 01027	EPA	THOD	— LAB ID —— 1186	0.0100 MG/L —— concentration reported —— —— -0.0050 MG/L ——— PERMIT LIMIT	No Limit  LOADING REPORTED  XXXXXXXXXXXXXXXX  PERMIT LIMIT
TOTAL CHROM SAMPLE DATE — 07/06/92	IIUM — ANALYSIS DATE — 07/22/92	STORET	EPA	THOD	— LAB ID — 1186	0.0500 MG/L —— CONCENTRATION REPORTED —— -0.0100 MG/L	No Limit LOADING REPORTED XXXXXXXXXXXXXXXXX

07/06/92

## SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Quarterly Monitoring

Invnum: 100193 Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Permit: G-0001-06 : Well CC-14 : A00087 Name Point PERMIT LIMIT -PERMIT LIMIT No Limit Reserved MG/L TOTAL COPPER LOADING REPORTED CONCENTRATION REPORTED LAB ID . METHOD ANALYSIS DATE STORET SAMPLE DATE XXXXXXXXXXXXX -0.0100 MG/L 220.1 1186 01042 EPA 07/22/92 07/06/92 - PERMIT LIMIT PERMIT LIMIT -No Limit 0.0500 MG/L TOTAL LEAD LOADING REPORTED CONCENTRATION REPORTED STORET METHOD LAB ID SAMPLE DATE . ANALYSIS DATE XXXXXXXXXXXXX -0.0020 MG/L EPA 239.2 1186 01051 07/06/92 07/22/92 - PERMIT LIMIT . PERMIT LIMIT -No Limit Reserved MG/L TOTAL MANGANESE LOADING REPORTED CONCENTRATION REPORTED METHOD . LAB ID STORET SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXX 1186 -0.0100 MG/L **EPA** 243.1 01055 07/06/92 07/22/92 PERMIT LIMIT -PERMIT LIMIT -0.0500 MG/L No Limit TOTAL SILVER LOADING REPORTED CONCENTRATION REPORTED L'AB ID METHOD ANALYSIS DATE STORET SAMPLE DATE XXXXXXXXXXXXX 1186 -0.0020 MG/L 272.1 01077 EPA 07/06/92 07/22/92 PERMIT LIMIT -PERMIT LIMIT -0.0100 MG/L No Limit TOTAL SELENIUM LOADING REPORTED CONCENTRATION REPORTED LAB ID STORET METHOD SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXX 270.2 1186 0.0030 MG/L 01147 **EPA** 07/06/92 07/22/92 PERMIT LIMIT -PERMIT LIMIT -Reserved MG/L No Limit TOTAL PHENOLS CONCENTRATION REPORTED LOADING REPORTED LAB ID METHOD STORET SAMPLE DATE ANALYSIS DATE XXXXXXXXXXXXX 1186 -0.0050 MG/L 420.2 46000 **EPA** 08/26/92 09/14/92 - PERMIT LIMIT -PERMIT LIMIT -0.0020 MG/L No Limit TOTAL MERCURY LOADING REPORTED CONCENTRATION REPORTED LAB ID STORET METHOD SAMPLE DATE ANALYSIS DATE

245.1

**EPA** 

1186

0.0005

MG/L

XXXXXXXXXXXXX

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

71900

07/22/92

#### SELF MONITORING REPORT FORM

#### ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Quarterly Reporting - Quarterly Monitoring

	PHELPS DODGE A00087	MORENCI Name	INC - CH		EEK	APPANET A IMAT	Invnum: 100193 Permit: G-0001-06 PERMIT LIMIT
TOTAL ZINC	— ANALYSIS DATE —	STORET	MET	:	- LAB ID -	Reserved MG/L	No Limit  COADING REPORTED
07/06/92	07/22/92	82062	EPA	289.1	1186	0.0200 MG/L	XXXXXXXXXXXXXXX
NITRATE	••					10.0000 MG/L	No Limit
SAMPLE DATE 07/06/92	ANALYSIS DATE 07/22/92	STORET 00620	EPA	HOD	— LAB ID ——— 1186	CONCENTRATION REPORTED	LOADING REPORTED

Note: Concentration preceded by a minus sign is detection limit and indicates none detected.

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Junot A Smile

DATE 10/26/92

TABLE 1A

## CHASE CREEK MONITOR WELL Monthly Analytical Results (mg/l)

• .		Well No.	CC-7
Element	07-06-92	08-03-92	09-01-92
Calcium	410.00	390.00	380.00
Chloride	159.00	151.00	162.00
Iron	0.015	0.015	0.015
Magnesium	70.00	70.00	68.00
рН	7.00	7.80	7.20
Sodium	33.00	34.00	32.00
Sulfate	1010.0	980.0	950.0
TDS	1910	1880	1900
Potassium	10.30	11.00	10.50
Bicarbonate	116.00	117.00	121.00

TABLE 1B

## CHASE CREEK MONITOR WELL Monthly Analytical Results (mg/l)

Element	07-06-92	08-03-92	09-01-92
Calcium	290.00	280.00	290.00
Chloride	288.00	295.00	308.00
Iron	0.015	0.015	0.015
Magnesium	67.00	65.00	61.00
рН	7.30	7.80	7.50
Sodium	74.00	79.00	76.00
Sulfate	615.0	605.0	565.0
TDS	1540	1480	1520
Potassium	8.50	9.10	8.80
Bicarbonate	110.00	110.00	110.00

TABLE 1C

## CHASE CREEK MONITOR WELL Monthly Analytical Results (mg/l)

Element	07-06-92	08-03-92	09-01-92
Calcium	320.00	306.00	290.00
Chloride	297.00	300.00	291.00
Iron	0.015	0.015	0.015
Magnesium	65.00	66.00	64.00
рН	7.10	7.80	7.20
Sodium	47.00	41.00	47.00
Sulfate	650.0	580.0	585.0
TDS	1580	1550	1570
Potassium	10.00	8.70	10.40
Bicarbonate	108.00	109.00	110.00

### TABLE 2A

#### CHASE CREEK MONITOR WELL Quarterly Analytical Results (mg/l)

Element	07-06-92
Arsenic	.0005
Barium	0.050
Cadmium	.0025
Chromium	.025
Lead	.0005
Mercury	.0004
Nitrate (N)	1.70
Selenium	.005
Silver	.0050
Fluoride	00.54
Phenols	.0010
Copper	00.01
Manganese	0.005
Zinc	00.0100

#### TABLE 2B

## CHASE CREEK MONITOR WELL Quarterly Analytical Results (mg/l)

Element	07-06-92
Arsenic	.0020
Barium	0.050
Cadmium	.0025
Chromium	.025
Lead	.0005
Mercury	.0003
Nitrate (N)	1.40
Selenium	.003
Silver	.0050
Fluoride	00.58
Phenols	.0010*
Copper	00.01
Manganese	0.005
Zinc	00.0100

<sup>\*</sup>Value shown is for resample taken on 8/26/92. Phenols assay for 7/06/92 sample was incorrect due to analytical error.

#### TABLE 2C

#### CHASE CREEK MONITOR WELL Quarterly Analytical Results (mg/l)

Element	07-06-92
Arsenic	.0005
Barium	0.050
Cadmium	.0025
Chromium	.025
Lead	.0005
Mercury	.0005
Nitrate (N)	1.60
Selenium	.003
Silver	.0050
Fluoride	00.76
Phenols	.0010 *
Copper	00.01
Manganese	0.005
Zinc	00.0200

<sup>\*</sup>Value shown is for resample taken on 8/26/92. Phenols assay for 7/06/92 sample was incorrect due to analytical error.

TABLE 3A

CHASE CREEK MONITOR WELL
Five Point Monthly Average (mg/l)

		Well No. CC-	7
Element	M,A,M,J,J, 92	A,M,J,J,A, 92	M,J,J,A,S, 92
Calcium	394.20	397.80	395.80
Chloride	155.40	156.20	158.20
Iron	.015	.015	.015
Magnesium	72.400	72.800	70.800
рн	7.08	7.22	7.24
Sodium	32.600	34.200	33.200
Sulfate	1000.0	1005.0	995.0
TDS	1889	1865	1873
Potassium	10.40	10.62	10.74
Bicarbonate	117.80	116.80	117.80

TABLE 3B

## CHASE CREEK MONITOR WELL Five Point Monthly Average (mg/l)

		Well No. CC-	8
Element	M,A,M,J,J,92	A,M,J,J,A, 92	M,J,J,A,S,92
Calcium	311.80	301.20	295.00
Chloride	236.00	259.00	280.80
Iron	.015	.015	.015
Magnesium	75.200	72.200	67.600
рН	7.40	7.46	7.48
Sodium	71.600	74.400	74.800
Sulfate	781.0	716.0	649.0
TDS	1625	1569	1531
Potassium	8.82	8.82	8.86
Bicarbonate	110.00	110.00	110.20

TABLE 3C

## CHASE CREEK MONITOR WELL Five Point Monthly Average (mg/l)

		Well No. CC-1	4
Element	M,A,M,J,J,92	A,M,J,J,A, 92	M,J,J,A,S, 92
Calcium	307.80	307.00	305.00
Chloride	290.60	297.20	297.60
Iron	.021	.018	.018
Magnesium	65.600	67.200	66.400
pН	7.28	7.38	7.32
Sodium	44.600	45.800	45.800
Sulfate	604.0	601.0	598.0
TDS	1502	1520	1540
Potassium	10.30	10.18	10.14
Bicarbonate	108.80	109.00	108.80

#### TABLE 4A

## CHASE CREEK MONITOR WELL Five Point Quarterly Average (mg/l)

	4 - 4	Well	No.	CC-7
<u>Element</u>	J,O,J,A,J, 92	-		
Arsenic	.0005	r .		•
Barium	.050			
Cadmium	.0025			•
Chromium	.025			
Lead	.0005			
Mercury	.0002			
Nitrate (N)	1.74		*	
Selenium	.004		-	*
Silver	.0050			
Fluoride	.56	•		
Phenols	.0046		,	
Copper	.01			
Manganese	.005			
Zinc	.0620	•		

TABLE 4B

### CHASE CREEK MONITOR WELL Five Point Quarterly Average (mg/l)

		Well 1	No.	CC-8
Element	J,O,J,A,J, 92			
Arsenic	.0014			
Barium	.050			• .
Cadmium	.0025			
Chromium	.025			
Lead	.0005	. !		
Mercury	.0001		•	•
Nitrate (N)	1.48			
Selenium	.003			
Silver	.0050			
Fluoride	.56	•		
Phenols	.0022*			
Copper	.01			
Manganese	.005			
Zinc	.0659	•		

<sup>\*</sup>See comment on Table 2B.

TABLE 4C

# CHASE CREEK MONITOR WELL Five Point Quarterly Average (mg/l)

·			NT	
Element	J,O,J,A,J, 92	Well	NO.	CC-:
Arsenic	.0005			
Barium	.050			
Cadmium	.0025		•	
Chromium	.025			. *
Lead	.0005	-		
Mercury	.0002			
Nitrate (N)	1.58		**	
Selenium	.002		•	
Silver	.0050	•		
Fluoride	.76			
Phenols	.0030*			
Copper	.02			•
Manganese	.008			
Zinc	.1146		:	
•				

<sup>\*</sup>See comment on Table 2C.

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

: LEAK DETECT

Invnum: 100193

: A00084 Point

Name

PLANT FEED POND

Permit: G-0001-06

Latitude: 33°3'40 .35"

Longitude: 109°19'51 .51"

Township: 045 Section: 25

: 29E Range : BDD Quarter

Phelps Dodge Morenci, Inc.

Timothy R. Snider, Manager

4521 U.S. Highway 191 Morenci, AZ 85540 Quarterly Reporting - Weekly Monitoring

SPECIFIC CO	ONDUCTANCE  ANALYSIS DATE —	STORET	METHOD	LAB ID -	10000.0000  CONCENTRATION REPORTED — incromhos	PERMIT LIMIT  NO LIMIT  LOADING REPORTED  XXXXXXXXXXXXXXXX
	/ /	_ : -	+	<del>-1</del> +	micromhos	XXXXXXXXXXXX
/ /	/ / +		Field -	++	micromhos	XXXXXXXXXXXXX
/ /	/ /	<b>⊢</b> .	Field -		micromhos	XXXXXXXXXXXX
1 1	//	L ·	Field	- <del></del>	+	XXXXXXXXXXXXX
/ /	///	<b>.</b>	Field		micromhos +	XXXXXXXXXXXXX
//	/ /	r ,	Field	 	micromhos	
/ /	+ / /	<del> -</del>	Field		micromhos	XXXXXXXXXXXXX
	+ / /	+	+-−Field		micromhos L	XXXXXXXXXXXX
	+ , ,	+	<del></del>		micromhos	XXXXXXXXXXXXX
/./	1 / /	+	<del></del>	<del></del>	micromhos	XXXXXXXXXXXXX
/ /	/ /	1	Field		L	

Note: Permit G-0001-06 requires sampling when there are flows of 1 ml/sec.

There were no flows that equaled or exceeded 1 ml/sec.

## SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY Quarterly Reporting - Weekly Monitoring

Facility: F	PHELPS DODGE	MORENCI Name	INC - CHASE CRI : LEAK DETECT	EEK	PERMIT LIMIT	Invnum: 100193 Permit: G-0001-06 PERMIT LIMIT
8PBCIFIC CC - SAMPLE DATE -	ONDUCTANCE  T— ANALYSIS DATE —	STORET	T METHOD	LAB ID -	10000.0000	No LimitLOADING REPORTED XXXXXXXXXXXXXXX
	<del>                                     </del>		Field		micromhos	XXXXXXXXXXXXXXX
PH - SAMPLE DATE -	- ANALYSIS DATE -	STORET	METHOD	LAB ID -	Reserved	No LimitLOADING REPORTED XXXXXXXXXXXXXXXX
/ /	+ / /	<u>-</u>	Field — Field	 - <del></del>	+ su	XXXXXXXXXXXX
11	+ / /	<del> -</del> -	Field -	_ <del></del>	su +	XXXXXXXXXXXXX
1 . 1	/ /	•	Field -	 - <del> </del>	su su	XXXXXXXXXXXXX
/ /	+ / /	+	Field 	- <del></del>	su	xxxxxxxxxxx
	1//	+-	Field		SU	XXXXXXXXXXXX
//	' / /	+-	Field —		su 	XXXXXXXXXXXXX
/ /	/ /	+-	Field —		su d	XXXXXXXXXXXX
//	1 / /	+-	+ Field		su -	XXXXXXXXXXXX
1.1	+ / /	+ ,	Field		SU	XXXXXXXXXXXX

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT.

SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE 10/26/GL

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK

: LEAK DETECT

Invnum: 100193 Permit: G-0001-06

Point : A00084 Latitude: 33°3'48 .66"

Name Longitude: 109°19'51.08"

Township: 04S Section: 25

: 29E Range

Quarter : BDD

Phelps Dodge Morenci, Inc.

Timothy R. Snider, Manager

4521: U.S. Highway 191 Morenci, AZ 85540 Quarterly Reporting - Weekly Monitoring

RAFFINATE POND

SPECIFIC CO	NDUCTANCE  — ANALYSIS DATE —	STORET	METHOD	LAB ID -	PERMIT LIMIT  10000.0000  CONCENTRATION REPORTED	PERMIT LIMIT  NO Limit  LOADING REPORTED  XXXXXXXXXXXXXXXX
/ /	/ /	_	Field —	<del></del> -	mi cromhos	XXXXXXXXXXXX
/ /	//		Field	'	micromhos	
/ /	//	<del>-</del>	Field	' '	micromhos	XXXXXXXXXXXX
/ /	 	-	Field		micromhos	XXXXXXXXXXXX
	<del>                                     </del>	<del>-</del> · -	┼─ ── Field		micromhos	XXXXXXXXXXXX
	<del>                                     </del>	<b>⊢</b>	├─ ── Field	<del>- </del> -	micromhos	XXXXXXXXXXXX
	/ /	<del>-</del>	+	1	+ + + micromhos	XXXXXXXXXXXX
/ /	<del>/ / /</del>	<del> -</del> -	Field —	<del></del>	+ micromhos	XXXXXXXXXXXX
//	//		Field —	 	<del>                                     </del>	
/ /	/ /	1	Field	 	micromhos	XXXXXXXXXXXX
1 1	///	<del>-</del>	Field		micromhos	XXXXXXXXXXXX

Note: Permit G-0001-06 requires sampling when there are flows of 1 ml/sec.

There were no flows that equaled or exceeded 1 ml/sec.

### SELF MONITORING REPORT FORM ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Invnum: 100193

Quarterly Reporting - Weekly Monitoring

Facility: PHELPS DODGE MORENCI INC - CHASE CREEK Permit: G-0001-06 : LEAK DETECT Name PERMIT LIMIT -: A00084 Point PERMIT LIMIT -No Limit 10000.0000 LOADING REPORTED -SPECIFIC CONDUCTANCE CONCENTRATION REPORTED -XXXXXXXXXXXX METHOD. - SAMPLE DATE - ANALYSIS DATE - STORET micromhos Field XXXXXXXXXXXX micromhos Field - PERMIT LIMIT -PERMIT LIMIT No Limit Reserved LOADING REPORTED -CONCENTRATION REPORTED -PH METHOD XXXXXXXXXXXXX ANALYSIS DATE -SU Field . XXXXXXXXXXXXX SU Field. XXXXXXXXXXXX SU Field XXXXXXXXXXXX SH Field. XXXXXXXXXXXX SU Field XXXXXXXXXXXX SU Field XXXXXXXXXXXX SU Field XXXXXXXXXXXX SU Field . XXXXXXXXXXXX SU Field XXXXXXXXXXXX SU Field. 1. su XXXXXXXXXXXXX Field รบ XXXXXXXXXXXX Field

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED ON THE ATTACHED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELEIVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINES AND IMPRISONMENT. 

			Date
A.	WELL IDENTIFIER (name,	location, or number) <u>CC-7</u>	Sampled: 7-6-92
в.	FIELD MEASUREMENTS		
	Depth to Water (prior	to purging): 117.74 (feet	below land surface)
	Land Elevation at Well	(feet above sea level): 3	561.61 (M.P.)
	Equipment Used to Meas	ure Water Level: 500' Stee	el Chain (Wetted
	Tane Method)		
	Water Temp. (°C): 22.2	pH (std. units): 6.64 Oth	er:
	Electrical Conducti	vity (umhos/cm @ 25°C): 2,0	10
			•
C.	SAMPLING METHODS		
	Well Purging Performed	: Yes: X No:	•
	Purging Equipment: De	dicated Pump	
٠.	Purge Time (hrsmin.)	: 19 Pumping Rate	(gpm) 12
	Sample Collection Equi	<pre>bment:well volume</pre>	es Removed: 3
	Bailer (type):_		
•	<u>X</u> Pump (type):_	Submersible	_Dedicated? <u>Yes</u>
	Other (type):_		
	If a Pump was Used, a	t What Depth Below the Wat	er Surface was the
	Pump Intake Set?:	120 Feet	• .
	Sample Collection Poin	t (well head, water tank, e	etc.): well head
_			
D.	EQUIPMENT DECONTAMINAT	ION Property Property	
	Briefly Describe Equip	ment Decontamination Proced	ures:
	water Level measure	ment Equipment: Wiping wit	IN DISPOSABLE TOWEL
	Purging Equipment:	Dodicated Pump	
	Furding Edarbmenc.	Dedicated Fump	
	Sample Collection F	quipment: Equipment Cleane	ed with Purge Water
	Sample Collection E	quipment. <u>Iquipment of cane</u>	
E.	CONTAINERIZATION AND P	RESERVATION	
٠.			
	WATER	PRESERVATION	CONTAINER
	QUALITY PARAMETER	METHOD	TYPE/SIZE
<del></del>	VORILLI TIMBILIAN	(All Stored at 4°C)	
Gen	eral Mineral/Physical	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
	nols	H3PO4 + CuSO4 Solution*	100 ML Glass
FILE	11013	1131 01 . 0400 . 0924020	
Fie	eld Filtering: Yes	(Ves. No. N/A)	•
	Filtering Apparatus: P	Pressure Disposable Filters	
	Filter Mesh Size: 0.45		
Cha	in-of-Custody Procedure		· _
-110			<del></del>
			•

\*All bottles furnished by BC Laboratories Inc. with preservative added.

•	WEIT TREMMTETER /name	location, or number) <u>CC-8</u>	Date Sampled: 7-6-92
A.		Tocación, or namber,	
B.	FIELD MEASUREMENTS	to murging) : /55:33 (feet )	nelow land surface)
	Depth to water (prior	to purging): <u>/55.33</u> (feet ) (feet above sea level): <u>3</u>	521.52 (M.P.)
	Equipment Used to Meas	ure Water Level: 500' Stee	Chain (Wetted
	Tane Method)		
	Water Temp. (°C): 26.7	pH (std. units): 6,70 Other	er:
	Electrical Conducti	vity (umhos/cm @ 25°C): / 84	,0
C.	SAMPLING METHODS		
•	Well Purging Performed	: Yes: X No:	
	Purging Equipment: De	dicated Pump	
	Purge Time (hrsmin.)	: 28 min) Pumping Rate	(gpm) 10
	Sample Collection Equi	pment: Well volume	s Removed:
	Bailer (type):_	Submersible	Dedicated? Voc
	X Pump (type):_	Submersible	_Dedicated:ies
	Other (type):_	t What Depth Below the Wat	er Surface was the
	Pump Intake Set?:	1/3 Feet	er barrace was one
	Sample Collection Poin	t (well head, water tank, e	tc.): Well Head
	Sample Collection form	c (well meda) waste summy	
D.	EQUIPMENT DECONTAMINAT	ION	
	Briefly Describe Equip	ment Decontamination Proced	ures:
	Water Level Measure	ment Equipment: Wiping wit	<u>h Disposable Towel</u>
	Purging Equipment:_	Dedicated Pump Placed on P	VC Pump Column
	Sample Collection E	quipment: Equipment Cleane	d with Purge Water
E.	CONTAINERIZATION AND P	RESERVATION	
			COLUMN T117D
	WATER	PRESERVATION	CONTAINER
	OUALITY PARAMETER	METHOD	TYPE/SIZE
		(All Stored at 4°C)	1 000 M Dioctic
	<u>eral Mineral/Physical</u>	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
<u>Phe</u>	nols	H3PO4 + CuSO4 Solution*	100 ML Glass
		. :	
Fie	ld Filtering: Yes	(Yes, No, N/A)	
	Filtering Apparatus:F	ressure Disposable Filters	
	Filter Mesh Size: 0.45	Micron	
Cha	in-of-Custody Procedure	s Followed: Yes X No_	<del></del>

<sup>\*</sup>All bottles furnished by BC Laboratories Inc. with preservative added.

	·	Date
A. WELL IDENTIFIER (name,	location, or number) <u>CC-1</u>	4 Sampled: /-6-72
TTT NEWGOTTENMO		
Denth to Water (prior	to purging): /43./5 (feet	below land surface)
Tand Flevation at Well	(feet above sea level): 3	0000.39 (M.P.)
Equipment Used to Meas	ure Water Level: 500' Stee	el Chain (Wetted
mana Mathadl		
Water Temp. (°C): 23.8	pH (std. units): 6.95 Oth	er:
Electrical Conducti	vity (umhos/cm @ 25°C): 1/8	50
SAMPLING METHODS	-	
Well Purging Performed	: Yes: X No:	
Purging Equipment: De	dicated Pump	- (cmm) 10
Purge Time (hrsmin.)	: 20 min Pumping Rate	s Removed: 3
Sample Collection Equi	pment:Well Volume	es Removed
Baller (type):_	Submersible	Dedicated? Yes
_X_Pump (type):_	Submersible	
Tf a Dumn was Used a	t What Depth Below the Wat	ter Surface was the
DIIMA INTAKA SATI	143 reel	
Sample Collection Poir	t (well head, water tank,	etc.): <u>Well Head</u>
D. EQUIPMENT DECONTAMINAT	ION	_
Briefly Describe Equip	ment Decontamination Proces	dures:
Water Level Measure	ment Equipment: Wiping wit	ch Disposable Towel
	Dedicated Dump on DV Colu	mn
Purging Equipment:	Dedicated Pump on PV Colum	
Cample Callegtion I	quipment: Equipment Clean	ed with Purge Water
from Well	darbmenc. Tagrbmenc ereas.	
TLOW METT		
E. CONTAINERIZATION AND I	RESERVATION	
WATER	PRESERVATION	CONTAINER
QUALITY PARAMETER	METHOD	TYPE/SIZE
	(All Stored at 4°C)	
General Mineral/Physical	No Additives	1,000 ML Plastic
Total Metals	HNO3 to <2 pH*	500 ML Plastic
Nitrate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
Phenols	H3PO4 + CuSO4 Solution*	100 ML Glass
		· · · · · · · · · · · · · · · · · · ·
		•
Field Filtering: Yes	(Yes, No, N/A)	
Filtering Apparatus:	<u>Pressure Disposable Filters</u>	
Field Filtering: Yes Filtering Apparatus: 1 Filter Mesh Size: 0.45 Chain-of-Custody Procedure	Pressure Disposable Filters  Micron	

<sup>\*</sup>All bottles furnished by BC Laboratories Inc. with preservative added.

			Date 8-3-92
A.	WELL IDENTIFIER (name,	location, or number) <u>CC-7</u>	Sampled: O 3 12
в.			
ь.	Donth to Water (prior	to purging): 1/8.54 (feet	below land surface)
	TAMA DIAMATIAN AT WALL	TEACT WOUND SED TEACTION A	
	Fauinment lised to Measi	ure Water Level: 500' Stee	l Chain (Wetted
	mana Mathadl		
	Water Temp (°C): 22.7	pH (std. units): 6.89 Oth	er:
	Electrical Conductiv	vity (umhos/cm @ 25°C): /, 9	50
•			
c.	SAMPLING METHODS		
	Well Purging Performed	: Yes: X No:	
	Purging Equipment: De	dicated Pump	(gmm) 12
	Purge Time (hrsmin.)	: 21 mid Pumping Rate pment:Well Volume	s Pemoved: 3
	Sample Collection Equi	pment:well volume	s Removed
	Bailer (type):_	Submersible	Dedicated? Yes
	<b>A 1 1 1 1 1 1 1 1 1 1</b>		
	Other (type):_	t What Depth Below the Wat	er Surface was the
	Pump Intake Set?:	120 Feet	
	Pump Intake Set::	t (well head, water tank, e	tc.): Well Head
	Sample Collection Form	c (well nedd) water tally	
<b>n</b>	EQUIPMENT DECONTAMINAT	TON	
D.	EQUIPMENT DECONTAMINAT	ment Decontamination Proced	lures:
	Briefly Describe Equip	ment Equipment: Wiping wit	h Disposable Towel
	Maret Devel Weasure	mene by darpmone	
	Purging Equipment:_	Dedicated Pump	
	Sample Collection E	quipment: <u>Equipment Cleane</u>	ed with Purge Water
_ :			
E.	CONTAINERIZATION AND P	RESERVATION	
	MAMED	PRESERVATION	CONTAINER
	WATER	METHOD	TYPE/SIZE
	QUALITY PARAMETER	(All Stored at 4°C)	
_	1 mi 1 /Dhanni 1	No Additives	1,000 ML Plastic
	neral Mineral/Physical	HNO3 to <2 pH*	500 ML Plastic
	al Metals		50 ML Plastic
	rate/Nitrite	<u>H2SO4 to &lt;2 pH*</u> <u>H3PO4 + CuSO4 Solution*</u>	100 ML Glass
Phe	enols	H3PO4 + CUSO4 SOIUCION-	
		(Yes, No, N/A)	
Fie	eld Filtering: Yes	(Yes, No, N/A)	
	Filtering Apparatus:	Pressure Disposable Filters	
	Filter Mesh Size: 0.45	o <u>Micron</u> es Followed: Yes <u>X</u> No_	
Cha	ain-of-Custody Procedure	s rollowed: les No	

<sup>\*</sup>All bottles furnished by BC Laboratories Inc. with preservative added.

Α.	WELL IDENTIFIER (name.	location, or number) <u>CC-</u>	Date 8 Sampled: 8-3-92
B.	FIELD MEASUREMENTS	haing) . 15/ 7 4 (feet	helow land surface)
	Depth to water (prior	to purging): 156,24 (feet (feet above sea level):	3621.52 (M.P.)
	Equipment Hand to Moss	ure Water Level: 500' Ste	el Chain (Wetted
	Tape Method)	die water hever	
	Water Temp. (°C): 26.8	pH (std. units): 7./4 Ot	her:
	Electrical Conducti	vity (umhos/cm @ 25°C):_/	840
c.	SAMPLING METHODS	•	
	Well Purging Performed	: Yes: X No:	
	Durging Equipment: De	dicated Pump	
	Purge Time (hrsmin.)	: 32 min. Pumping Rat	ce (gpm) 10
	Sample Collection Equi	: 32 min Pumping Rate pment: Well Volume	mes Removed: 3
		Submersible	
	X Pump (type):_	Submersible	Dedicated: <u>res</u>
	Other (type):_	t What Depth Below the Wa	ater Surface was the
	Pump Intake Set?:	143 Feet	
	Sample Collection Poin	t (well head, water tank,	etc.): Well Head
	Jump 20 CO2 200 2011 2021		•
D.	EQUIPMENT DECONTAMINAT	ION	
	Briefly Describe Equip	ment Decontamination Proce	edures:
	Water Level Measure	ment Equipment: Wiping W	ith Disposable Towel
		n 11 m n n n n n n n	DVC Dump Column
	Purging Equipment:_	Dedicated Pump Placed on	PVC Pump Column
	Comple Collection F	Equipment: Equipment Clear	ned with Purge Water
	Sample Collection B	darbmenc. <u>Fdarbmenc crea</u>	104 W 2 022 2 22 1 2 1 2 1 2 1 2 1 2 1 2 1 2
E.	CONTAINERIZATION AND I	PRESERVATION	
•	E13 (III)	PRESERVATION	CONTAINER
	WATER OUALITY PARAMETER	METHOD	TYPE/SIZE
	OUALITY PARAMETER	(All Stored at 4°C)	
Con	eral Mineral/Physical	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
	nols	H3PO4 + CuSO4 Solution*	100 ML Glass
Fie	eld Filtering: Yes	(Yes, No, N/A)	
	Filtering Apparatus:I	Pressure Disposable Filter	<u>s</u>
	Filter Mesh Size: 0.45	Micron	•
Cha	in-of-Custody Procedure	es Followed: Yes <u>X</u> No	<del></del>

\*All bottles furnished by BC Laboratories Inc. with preservative added.

Α.	WELL IDENTIFIER (name	location, or number)	Date CC-14 Sampled: 8-3-92
		100002011, 02 1101115027	
В.	FIELD MEASUREMENTS	+= minerines 14407 (f)	not bolow land surface)
	Depth to water (prior	to purging): /44,02 (for (feet above sea level)	· 3808 30 (M D )
	Fourthment Head to Meas	sure Water Level: 500'	Steel Chain (Wetted
•	Tape Method)	die water bever	Jeec Chain (Webbea
	Water Temp. (°C): 23,9	pH (std. units):6.94	Other:
,	Electrical Conducti	vity (umhos/cm @ 25°C):	1,840
_			
c.	SAMPLING METHODS	l: Yes: <u>X</u> No:	
	Purging Equipment: De	digated Dump	·
	Purce Time (bre -min )	:2/_mwPumping	Rate (crom) 10
	Sample Collection Four	pment:Well Vo	lumes Removed: 3
	Pailer (type).		· · · · · · · · · · · · · · · · · · ·
	X Pump (type):	Submersible	Dedicated? Yes
	Other (type):_		
	If a Pump was Used, a	t What Depth Below the	Water Surface was the
	rump intake Set::	143 reet	
	Sample Collection Poir	nt (well head, water tan	k, etc.): Well Head
_			
D.	EQUIPMENT DECONTAMINAT	ment Decontamination Pr	
	Water Lovel Mongary	ement Equipment: Wiping	with Disposable Towel
	water hever measure	ment rdarbment. <u>wrbrid</u>	WICH DISPOSABLE TOWER
	Purging Equipment:	Dedicated Pump on PV C	olumn
	Sample Collection I	Equipment: <u>Equipment Cl</u>	eaned with Purge Water
	from Well		
_			
E.	CONTAINERIZATION AND I	RESERVATION	
	WATER	PRESERVATION	CONTAINER
	QUALITY PARAMETER	METHOD	TYPE/SIZE
	OORDITI IMMIDILIN	(All Stored at 4°C)	
Gen	eral Mineral/Physical	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
	nols	H3PO4 + CuSO4 Solution	
	11015	MJI OT . COSOT. DOZICOZO	
	ld Filtering: Yes		
		Pressure Disposable Filt	ers
	Filter Mesh Size: 0.45		
Cna	in-or-Custody Procedure	es Followed: Yes X	No
<b>-</b>	l bottles furnished be-	BC Laboratories Inc. wi	th preservative added
~AI	T poccies intuitaned by	be proportioning the MI	ou breservantae added.

		·	Data
A.	WELL IDENTIFIER (name	, location, or number) <u>CC</u>	Date: 8 Sampled: 8 26-92
в.	FIELD MEASUREMENTS		
<b>.</b>			
	Depth to water (prior	to purging): 156.82 (fee	t below land surface)
	Land Elevation at Wel.	l (feet above sea level):_	3621.52 (M.P.)
	Tape Method)	sure Water Level: 500' St	
	Water Temp. (°C): 26.8	pH (std. units): 7.13 0	ther:
	Electrical Conduct	ivity (umhos/cm @ 25°C): 1	820
c.	SAMPLING METHODS		
	Well Purging Performed	d: Yes: <u>X</u> No:	
-	Purging Equipment: De	edicated Dump	
	Purge Time (hrsmin )	: 29 min Pumping Ra	to (cmm) 10
	Sample Collection For	inmont: Yoll Well Well	ce (gpm) 10
		ipment:Well Volu	
	Y Dump (type):	Submersible	
		Submersible	Dedicated? <u>Yes</u>
	Other (type):_	at What Depth Below the W 143 Feet	<del></del>
	Dump Intole Coto	at what hebru selow the M	ater Surface was the
	Pump Intake Set?:	143 reet	
	sample Collection Poly	nt (well head, water tank,	etc.): <u>Well Head</u>
<b>D</b>			
D.	EQUIPMENT DECONTAMINAT		<u>.</u>
	Briefly Describe Equip	ment Decontamination Proc	edures:
	water Level Measure	ement Equipment: Wiping w	<u>ith Disposable Towel</u>
	Purging Equipment:	Dedicated Pump Placed on	PVC Pump Column
	Sample Collection E	Equipment: <u>Equipment Clear</u>	ned with Purge Water
	•		
E.	CONTAINERIZATION AND P	RESERVATION	•
	WATER	PRESERVATION	CONTAINER
	DUALITY PARAMETER	METHOD	TYPE/SIZE
-		(All Stored at 4°C)	
Gene	eral Mineral/Physical	No Additives	1 000 MT Dlagtic
	al Metals	HNO3 to <2 pH*	1,000 ML Plastic
	ate/Nitrite		500 ML Plastic
Pher		H2SO4 to <2 pH*	50 ML Plastic
Pilei.	IOIS	H3PO4 + CuSO4 Solution*	100 ML Glass
	· · · · · · · · · · · · · · · · · · ·		
riel	d Filtering: Yes	(Yes, No, N/A)	
F	'iltering Apparatus: <u> </u>	ressure Disposable Filters	5
F	'ilter Mesh Size: <u>0.45</u>	Micron	
Chai	n-of-Custody Procedure	s Followed: Yes X No	
•			

<sup>\*</sup>All bottles furnished by BC Laboratories Inc. with preservative added.

			Date
A.	WELL IDENTIFIER (name,	location, or number) <u>CC-1</u>	<u>4 Sampled: 8-26-9</u> 2
B.	Depth to Water (prior Land Elevation at Well Equipment Used to Meas Tape Method)  Water Temp. (°C): 23.9	to purging): / 44,58 (feet (feet above sea level): 3 ure Water Level: 500' Stee pH (std. units): 6,97 Oth vity (umhos/cm @ 25°C): /84	el Chain (Wetted
C.	Purging Equipment: De Purge Time (hrsmin.) Sample Collection Equi Bailer (type): X Pump (type): Other (type): If a Pump was Used, a Pump Intake Set?: Sample Collection Poin EQUIPMENT DECONTAMINAT	Pumping Rate pment:	Dedicated?Yes ter Surface was the etc.):Well_Head
	Water Level Measure	ment Equipment: Wiping wit	th Disposable Towel
·	Purging Equipment:	Dedicated Pump on PV Colum	nn
	Sample Collection I from Well	Equipment: Equipment Clean	ed with Purge Water
E.	CONTAINERIZATION AND I	PRESERVATION	
	WATER OUALITY PARAMETER	PRESERVATION METHOD	CONTAINER TYPE/SIZE
Car	neral Mineral/Physical	(All Stored at 4°C) No Additives	1,000 ML Plastic
	cal Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
	enols	H3PO4 + CuSO4 Solution*	100 ML Glass
٠	Filtering Apparatus:	(Yes, No, N/A) Pressure Disposable Filters Micron es Followed: Yes_X No_	

<sup>\*</sup>All bottles furnished by BC Laboratories Inc. with preservative added.

			Date
A.	WELL IDENTIFIER (name,	location, or number) <u>CC-7</u>	Sampled: 9-1-92
	•		
В.	FIELD MEASUREMENTS	11977 (foot)	nelow land surface)
	Depth to Water (prior	to purging): 119.22 (feet )	561 61 (M P.)
	Land Elevation at Well	(feet above sea level): 3	Chain (Wetted
	Equipment Used to Meas	ure Water Level: 500' Stee	Chain (weecca
	Tape Method)	of the society of the Other	\
	Water Temp. (C): 22,2	pH (std. units): 6/86 Othe	2/2
	Electrical Conductiv	vity (umhos/cm @ 25°C): /, 98	
_	SAMPLING METHODS		
U.	Wall Durging Performed	: Yes: X No:	• •
	Description Description Do	dicated Dump	
	Durgo Time (bre -min )	: 20 min Pumping Rate pment: Well Volume	(gpm) 12
	Sample Collection Equi	pment: Well Volume	s Removed: 3
	Dailam (tuma)		and the second s
	Y Pump (type):	Submersible	_Dedicated?Yes
	Other (type):		
	Tf a Dumn was Used a	t What Depth Below the Wat	er Surface was the
	Dumn Intaka Sat? ·	120 Feet	
	Sample Collection Poin	t (well head, water tank, e	tc.): Well Head
	Pampie correction roin		•
<b>n</b>	EQUIPMENT DECONTAMINAT	TON	•
D.	Priofly Dogariba Equip	ment Decontamination Proced	ures:
	Briefly Describe Equip	ment Equipment: Wiping wit	h Disposable Towel
	Maret Devel Measure	mene ndarbmene	
	Purging Equipment:	Dedicated Pump	
	- · · · · ·	•	
	Sample Collection E	quipment: <u>Equipment Cleane</u>	<u>d with Purge Water</u>
			·
E.	CONTAINERIZATION AND P	RESERVATION	
		PRESERVATION	CONTAINER
	WATER		TYPE/SIZE
	QUALITY PARAMETER	METHOD	IIPE/SIZE
		(All Stored at 4°C)	. coo M Blockid
Gen	eral Mineral/Physical	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
	enols	H3PO4 + CuSO4 Solution*	100 ML Glass
			<u>, i </u>
Fie	eld Filtering: Yes	(Yes, No, N/A)	
	Filtering Apparatus: I	Pressure Disposable Filters	•
	Filter Mesh Size: 0.45	Micron	
Ch=	ain-of-Custody Procedure	es Followed: Yes X No	<u> </u>
0110	Ti. Or opposit recognition		
		· · · · · ·	

\*All bottles furnished by BC Laboratories Inc. with preservative added.

			Date
A.	WELL IDENTIFIER (name,	, location, or number) <u>(</u>	CC-8 Sampled: 9-1-12
в.	FIELD MEASUREMENTS		
٠.	Depth to Water (prior	to purging): 157.04 (fe	eet below land surface)
	Land Elevation at Well	l (feet above sea level): sure Water Level: 500' S	3021.32 (M.P.)
*	Mana Wathadl		
	Water Temp. (°C): 26.9	pH (std. units): 7./3	Other:
	Electrical Conduct	ivity (umhos/cm @ 25°C):_	1,820
		•	
C.	SAMPLING METHODS	a. Vog. V No.	
	Discovering Provingent D	d: Yes: X No:	
•	Purge Time (hrsmin.	): 28 mm Pumping I ipment: Well Vo	Rate (gpm) 10
	Sample Collection Equ	ipment:Well Vol	lumes Removed: 3
	Bailer (type):		
	X Pump (type):	Submersible	Dedicated?Yes
	Other (type):	at What Depth Below the	Water Surface was the
٠.	Pump Intake Set?:_	143 Feet	Macer Darrace was and
	Sample Collection Poi	nt (well head, water tank	k, etc.): Well Head
	Jumpie Colifornii 191		
D.	EQUIPMENT DECONTAMINA	TION	
•	Briefly Describe Equi	pment Decontamination Pro	ocedures:
	Water Level Measur	ement Equipment: Wiping	WICH DISPOSABLE TOWER
	Purging Equipment:	Dedicated Pump Placed	on PVC Pump Column
	•		
	Sample Collection	Equipment: <u>Equipment Cl</u>	eaned with Purge Water
_		DD ECEDYAMION	
E.	CONTAINERIZATION AND	PRESERVATION	
	WATER	PRESERVATION	CONTAINER
	OUALITY PARAMETER	MEMELOD	TYPE/SIZE
	VOIDELL LINGUISELL	(All Stored at 4°C)	
Gen	eral Mineral/Physical	No Additives	1,000 ML Plastic
	al Metals	HNO3 to <2 pH*	500 ML Plastic
Nit	rate/Nitrite	H2SO4 to <2 pH*	50 ML Plastic
Phe	enols	H3PO4 + CuSO4 Solutio	n* 100 ML Glass
<b>-</b> 2-	14 Dilhaming, You	(Yes, No, N/A)	
Fie	eld Filtering: Yes	Pressure Disposable Filt	ers
-	Filter Mesh Size: 0.4	5 Micron	
Cha	in-of-Custody Procedur	es Followed: Yes X	No
		BC Laboratories Inc. wi	49

		, location, or number) <u>CC-</u>	Date -14 Sampled: 9-1-92
А.	WELL IDENTIFIER (name	, location, of number) <u>ce</u>	14 Odmbied. / /
В.	Land Elevation at Wel Equipment Used to Mea Tape Method)	to purging): / 44.85 (feet l (feet above sea level): sure Water Level: 500' Steep ph (std. units): 6.97 Ot	eel Chain (Wetted
	Electrical Conduct	_ pH (std. units): <u>\( \textit{\texti\textit{\textit{\textit{\textit{\textit{\textit{\textit{\textit{\textit{\</u>	1,040
c.	Purging Equipment: D Purge Time (hrsmin. Sample Collection Equ	): <u> </u>	te (gpm) 10 nes Removed: 3
	X Pump (type):	Submersible	Dedicated? Yes
D.	Pump Intake Set?:_ Sample Collection Poi EQUIPMENT DECONTAMINA Briefly Describe Equi Water Level Measur	nt (well head, water tank,	etc.): Well Head edures: ith Disposable Towel
	Sample Collection from Well	Equipment: Equipment Clear	ned with Purge Water
E.	CONTAINERIZATION AND	PRESERVATION	
	WATER OUALITY PARAMETER	PRESERVATION METHOD	CONTAINER TYPE/SIZE
Gen Tot Nit	eral Mineral/Physical al Metals rate/Nitrite nols	(All Stored at 4°C) No Additives HNO3 to <2 pH* H2SO4 to <2 pH* H3PO4 + CuSO4 Solution*	1,000 ML Plastic 500 ML Plastic 50 ML Plastic 100 ML Glass
	ld Filtering: <u>Yes</u> Filtering Apparatus: Filter Mesh Size: <u>0.4</u> in-of-Custody Procedur	<u>Pressure Disposable Filter</u> 5 Micron	
*A]	l bottles furnished by	BC Laboratories Inc. with	preservative added.